

RECEIVED
CENTRAL FAX CENTER

JUN 20 2007

Appl. No. 09/761,433

Amdt. dated June 20, 2007

Reply to Office action of December 22, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An application provision system comprising:
 - a server;
 - a client comprising an operating system and a browser;
 - a communication link operatively connecting the server and the client;
 - a server resident process on the server for controlling the application provision system, and for providing a requested application from the server to the client;
 - a database comprising information for the location of files associated with an application that can be installed on the client;
 - a platform independent executable program deliverable by the server to the client for execution thereon, the platform independent executable program including security information for validation by the browser;
 - a secure browser hosted process on the client resulting from execution of the platform independent executable program on the client;
 - a communication pipe established within the communication link by the secure browser hosted process, the communication pipe being bidirectional, and enabling direct exclusive communication between the server resident process on the server, and the secure browser hosted process on the client through a secure channel, the secure browser hosted process accessing resources of the operating system on the client by installing, invoking or reading output from, executable files on the client.

Appl. No. 09/761,433

Amdt. dated June 20, 2007

Reply to Office action of December 22, 2006

2. (original) An application provision system according to claim 1 wherein the server resident process includes a common gateway interface.

3. (previously presented) An application provision system according to claim 1 wherein the platform independent executable program is attached to a web page.

4. (previously presented) An application provision system according to claim 1 wherein the platform independent executable program is a Java applet.

5. (currently amended) An application provision system for providing a requested application to a client, the application provision system comprising:

a server resident process on a server, the server connected to the client through a communication link, the server resident process controlling the application provision system and being able to respond to queries from the client;

a database comprising information for the location of files associated with an application that can be installed on the client;

a file deliverable to the client, the file including a platform independent executable program and parameter information, the platform independent executable program including security information for validation by a browser; the file executable on the client resulting in a secure browser hosted process, the secure browser hosted process establishing a bidirectional direct exclusive communication pipe within a communication link between the server resident process on the server and an operating system on the client; and

the bidirectional direct exclusive communication pipe being within the communications link; wherein the server resident process interacts with the secure browser hosted process through a secure channels in the bidirectional direct exclusive communication pipe; and wherein the secure browser hosted process accesses resources of the operating system on the client, installs, invokes or reads output from executable files on the client.

Appl. No. 09/761,433
Amdt. dated June 20, 2007
Reply to Office action of December 22, 2006

6. (cancelled)

7. (original) An application provision system according to claim 5 wherein the application provision system further comprises;

- at least one file associated with at least one application wherein the application is installable on the client; and
- at least one web page for downloading to the browser located on the client.

8. (original) An application provision system according to claim 5 wherein the file deliverable to the client includes a Java applet.

9. (original) An application provision system according to claim 5 wherein the server resident processes includes a common gateway interface.

10. -13. (cancelled)

14. (currently amended) A method of providing a requested application from a server to a client by an application provision system, the method comprising the steps of:

- providing a first web page to a client, the first web page having a link associated with a document;
- receiving from the client a request for the document by a server resident process;
- providing a second web page to the client, the second web page having a platform independent executable program, the platform independent executable program executable on the client resulting in a secure browser hosted process, the platform independent executable program including security information for validation by a browser; the secure browser hosted process establishing a bidirectional direct exclusive communication pipe between the server resident process on the server and an operating system on the client; the bidirectional direct exclusive communication pipe being ~~part of the~~ within a communication link, wherein the server resident process interacts with the secure browser hosted process through a secure channel in the bidirectional direct exclusive communication pipe; and wherein the secure browser hosted process accesses resources of the operating system on the client,

Appl. No. 09/781,433
Amdt. dated June 20, 2007
Reply to Office action of December 22, 2006

and requests an application to access the requested document; and
providing the requested application to the client wherein the requested application allows the client to access the requested document.

15. (previously presented) A method of providing a requested application according to claim 14 wherein the step of providing the application provides the entire application to the client.

16. (previously presented) A method of providing a requested application according to claim 14 wherein the step of providing the application provides selected files associated with the application to the client to update an existing instance of the application on the client.

17. (currently amended) A method of receiving a requested application from a server by a client in an application provision system, the method comprising the steps of:

receiving a first web page from a server, the first web page having a link associated with a document;

providing a request for the document to a server resident process by the client;

receiving a second web page from the server, the second web page having a platform independent executable program, the platform independent executable program executable on the client resulting in a secure browser hosted process, the platform independent executable program including security information for validation by the browser; the secure browser hosted process ~~establishing~~ communicating with the server resident process through a bidirectional direct exclusive communication pipe between the server resident process on the server and an operating system on the client; the bidirectional direct exclusive communication pipe being ~~part of~~ within the communication link, wherein the server resident process interacts with the secure browser hosted process through a secure channel in the bidirectional direct exclusive communication pipe; and wherein the secure browser hosted process accesses resources of the operating system on the client, and requests an application to access the requested document; and

receiving the requested application from the server wherein the requested

Appl. No. 09/761,433
Amdt. dated June 20, 2007
Reply to Office action of December 22, 2006

application allows the client to access the requested document.

18. (previously presented) A method of receiving a requested application according to claim 17 wherein the step of receiving the application receives the entire application from the client.

19. (previously presented) A method of receiving a requested application according to claim 17 wherein the step of receiving the application receives selected files associated with the application from the server to update an existing instance of the application on the client.

20. (currently amended) A method of providing a requested application from a server to a client connected through a communication link, the server comprising a web page for downloading by the client, the method comprising the steps of:

providing a platform independent executable program, the platform independent executable program including security information for validation by a browser, and a server resident process on a server;

delivering the platform independent executable program to the client during the downloading of a web page to which the platform independent executable program is attached, the platform independent executable program executable on the client resulting in a secure browser hosted process, the secure browser hosted process interacting directly with an operating system resident on the client;

receiving a request for an application from the secure browser hosted process, the secure browser hosted process communicating with the server resident process through [[an]] a secure channel in a bidirectional direct exclusive communication pipe, the bidirectional direct exclusive communication pipe being part of within the communication link; and

providing the requested application to the client, through the secure browser hosted process and the server resident process .

21. (currently amended) A method of automatic provisioning of a requested

Appl. No. 09/761,433

Amdt. dated June 20, 2007

Reply to Office action of December 22, 2006

application from a server to a client, the server and the client being connected through a communication link, the client comprises a browser and an operating system, the method comprising the steps of:

downloading a first web page containing a link, the link being associated with a document, by the client from the server;

selecting the link on the downloaded first web page;

downloading a second web page by the client from the server, the second web page comprising a platform independent executable program, the platform independent executable program including security information for validation by a browser;

opening a new window of the browser on the client;

invoking the platform independent executable program resulting in a secure browser hosted process, the secure browser hosted process interacting directly with an operating system of the client;

invoking a server resident process, the server resident process communicating with the browser hosted process through a secure channel in a bidirectional direct exclusive communication pipe, the bidirectional direct exclusive communication pipe being ~~part of~~ within the communication link;

scanning the client, by the browser hosted process to determine if the requested application is installed on the client;

providing the requested application to the client if the requested application is not installed on the client; and

invoking the requested application.

22. (cancelled)

23. (previously presented) A method according to claim 21 wherein the step of providing the requested application to the client comprises the steps of:

Appl. No. 09/761,433
Amdt. dated June 20, 2007
Reply to Office action of December 22, 2006

providing a setup executable file associated with the requested application by the server to the client, if the setup executable file is absent on the client;

installing the setup executable file on the client;

invoking the setup executable file;

providing files associated with a requested version of the requested application by the setup executable file from the server to the client; and

installing native components on the client such that the native components do not interfere with the operating system of the client.

24. (previously presented) A method according to claim 21 wherein the step of providing the requested application comprises the steps of:

determining if a version of the requested application previously installed on the client is the same as a version of the requested application located on the server; and

installing the requested application on the client if the version of the requested application installed on the client is not the version of the requested application located on the server.

25. (cancelled)

26. (currently amended) A method of automatically provisioning a requested application from a server to a client; the server and client being connected through a communication link, the client comprising a browser and an operating system, the method comprising the steps of:

providing a first web page to the client, the first web page having a link, the link being associated with a document accessible with the requested application;

receiving a request for a second web page by way of the client selecting the link associated with the document;

Appl. No. 09/761,433
Amdt. dated June 20, 2007
Reply to Office action of December 22, 2006

providing the second web page to the client, the second web page comprising a platform independent executable program executable on a client resulting in a secure browser hosted process, the platform independent executable program including security information for validation by a browser, the secure browser hosted process interacting directly with an operating system of the client;

receiving communications from the secure browser hosted process through [[an]] a secure channel in a bidirectional direct exclusive communication pipe, the bidirectional direct exclusive communication pipe being part of within the communication link;

invoking a server resident process;

communicating with the secure browser hosted process located on the client to facilitate determination of whether the requested application is installed on the client;

providing files associated with the requested application to the client for installation of the requested application on the client, if the requested application is not installed on the client;

transferring files associated with the requested application to the client for installation of the application on the client; and

invoking the requested application.

27. (previously presented) A method according to claim 26 wherein the step of providing files comprises the steps of:

providing a setup executable program associated with the requested application by the server to the client, if the setup executable program does not exist on the client;

installing the setup executable program on the client;

invoking the setup executable program;

Appl. No. 09/761,433
Amdt. dated June 20, 2007
Reply to Office action of December 22, 2006

providing files associated with a requested version of the requested application by the setup executable program from the server to the client; and

installing native components on the client such that the native components do not interfere with the operating system of the client.

28. (previously presented) A method according to claim 26 wherein the step of providing files comprises the steps of:

comparing version information of the requested application installed on the client with version information of the requested application located on the server; and transferring files associated with the requested application to the client for installation of the requested application on the client if the version of the requested application on the client is not the same as the version of the application located on the server.

29 - 31. (cancelled)

32. (currently amended) A storage medium readable by a computer encoding a computer program for execution by the computer to carry out a method for providing a requested application from a server to a client by an application provision system, the computer program comprising:

code means for providing a first web page to a client, the first web page having a link associated with a document;

code means for receiving from the client a request for the document by a server resident process;

code means for providing a second web page to the client, the second web page having client-server functionality, the client-server functionality executable on the client resulting in a secure browser hosted process, the browser hosted process establishing secure channel in a bidirectional direct exclusive communication pipe between the server resident process on the server and an operating system on the client; the bidirectional direct exclusive communication pipe being part of within the communication link, wherein the server resident process interacts with the browser hosted process through the birdirectional direct exclusive communication pipe, and

Appl. No. 09/761,433
Amdt. dated June 20, 2007
Reply to Office action of December 22, 2006

wherein the secure browser hosted process accesses resources of the operating system on the client, and requests an application to access the requested document; and

code means for providing the requested application to the client wherein the requested application allows the client to access the requested document.